



ZonePlus Z228 zone valve Installation and commissioning instructions



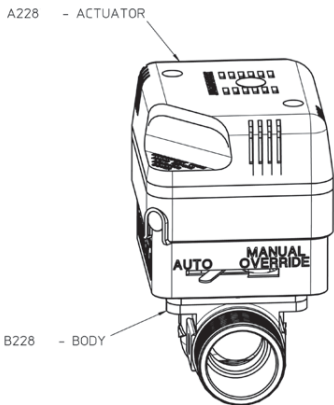
The Z228 valve with changeover auxiliary switch has been designed to control the water circulation in both gravity HW systems and larger fully pumped systems, which employ a single pump by allowing the flow to either or both HW and CH circuits using either a single or separate valves.

Operation

Valve position - In the event that mains power is disconnected the valve automatically spring-returns to the closed position.

Override lever: For manually operating systems to open valve for system draining or filling. During normal operation, the lever must be in the auto position

The Z228 consists of a 2 port valve body (Ref. B228) to which a self contained actuator (Ref. A228) is attached.

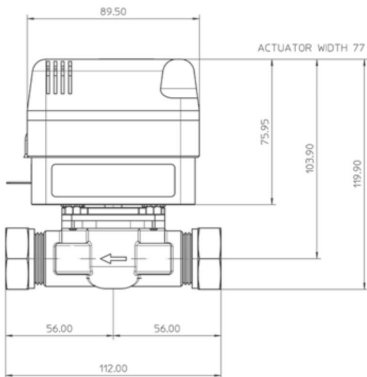


Installation

Positioning of Valve

On new installations fit the Z228 valve ensuring that the actuator head is NOT below the horizontal level of the pipe work and that the flow is in the direction of the arrow. Also check that neither the open vent or the cold feed are isolated. This will ensure system and product safety at all times. Remember to make allowances for working, maintenance and replacement.

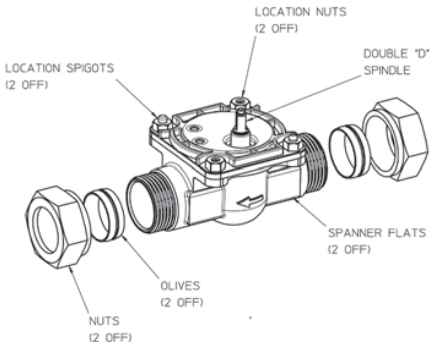
For safety, please ensure that all vents on the valve are clear of any obstructions, e.g. Clothing, towels, etc... Especially if fitted in airing cupboards as this could lead to overheating within the valve.



Installation

Fitting of valve body to pipework

Fit the valve body using the 28mm compression fittings provided. Tighten the compression nuts sufficiently to make a watertight seal, only gripping the valve by its body. Take care not to over tighten.

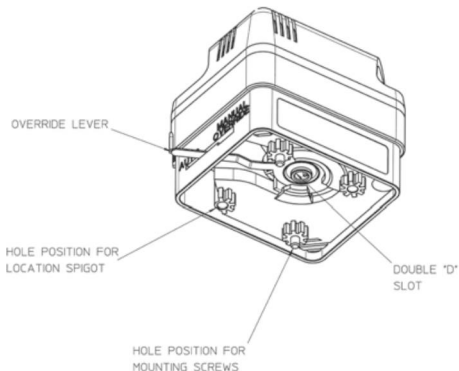


Installation

Fit actuator to valve body

Position the actuator on the valve body lining up the valve spindle with the 'D' shape slot. A yellow guide strip has been inserted behind the override lever to assist installation; please remove the guide once the actuator installation is complete and before the system is used. The actuator guide holes should line up with the spigots on the valve body.

Fix with the screws provided and tighten lightly. Set the override lever to manual. Fill, test and thoroughly flush the system.



Wiring connections - Standard installation

The 5 core cable fitted to the actuator can now be connected to the system following the simple colour-coded guide below.

Wire Colour	System Connection
Blue	Any Neutral supply.
Brown	'Call' terminal of cylinder stat if fitted, otherwise the HW ON terminal of the programmer.
White	Live terminal on pump and 'Call' terminal of room stat if fitted, otherwise on the 'CH ON' terminal of programmer.
Orange	Live terminal on boiler
Grey	Any permanent live supply.

USING A ZONEPLUS Z322 AS A DIVERTER VALVE

Wire Colour	System Connection
Wire Colour	System Connection
Blue	Any Neutral supply.
Brown	'Call' terminal of cylinder stat if fitted, otherwise the HW ON terminal of the programmer.
White	Not used. Make electrically safe.
Orange	Live terminal of pump and boiler
Grey	Any permanent live supply

FOR A FULLY PUMPED SYSTEM AND FITTED TO CH CIRCUIT:

<i>Wire Colour</i>	<i>System Connection</i>
Blue	Any Neutral supply.
Brown	'Call' terminal of room stat if fitted, otherwise the 'CH ON' terminal of the programmer.
White	Not used. Make electrically safe.
Orange	Live terminal of pump and boiler
Grey	Any permanent live supply.

No earth connection is required. Ensure all connections are good and the screws secure. A torque of 0.75Nm is recommended for fixing the wires in place.

NOTE: In the event that the Z228 is being used in an unconventional system, the connections on page 6 may be incorrect. In this case please seek advice.

Installation and connection should only be carried out by a suitably qualified person and in accordance with the current edition of the IET wiring regulations. A class 'A' switch (having contact separation of at least 3mm in all poles) must be incorporated in the fixed wiring as a means of disconnecting the supply, normally at the consumer unit. the system must be appropriately fused.

WARNING: Isolate mains supply before commencing installation

Commissioning

To check whether the valve is operating correctly, carry out the following checks after the system is filled and vented. Ensure that the override lever is in the Auto position and the insert guide is removed.

For a gravity system:

Hot water only

Set the room thermostat to minimum and / or turn the CH off at the programmer. Set the cylinder thermostat to maximum and turn the HW on at the programmer. The valve should open and the boiler only should fire.

Central heating only

Set the cylinder thermostat to minimum and/or turn the HW off at the programmer. Set the room thermostat to maximum and turn the CH on at the programmer.

The valve should remain closed but the boiler should fire and the pump should run.

Hot water and central heating

Set the room and cylinder thermostats to maximum and/or turn the HW and CH on at the programmer.

The valve should be open. The boiler should fire, the pump run and the pipes on the valve outlet side should get hot.

For a fully pumped system:

If the valve is fitted on the HW circuit:

Set the cylinder thermostat to maximum and/or turn the HW on at the programmer.

The valve should be open, the boiler should fire, the pump run and the pipe on the valve outlet side should get hot.

If the valve is fitted on a CH circuit:

Set the room thermostat to maximum and/or turn the CH on at the programmer.

The valve should open, the boiler should fire, the pump run and the pipe on the valve outlet side should get hot.

To reset:

Return both the thermostats and the programmer to their normal settings.

Please note the above assumes that both the programmer and thermostat are being used. If this is not the case, ignore the action described for the item not fitted.

Spares

The actuator and body for the Z228 zone valve (with changeover switch) can be purchased separately as spares or as replacement parts (see page 2).

Specification

Motor supply voltage:	230V AC, 50Hz
Power consumption:	5W
Lead supplied:	1.4 metre 5 core cable. Industry standard wire colours
No earth connection required:	Unit is double insulated
Operating flow temperature:	+5°C to 88°C
Switch rating:	3Amps
Switch type:	SPDT
Maximum ambient temperature:	50°C
Maximum static pressure:	8.6 bar
Maximum differential pressure:	0.5 bar
Pipe fitting size:	28mm compression
Actuator:	Maximum time to power Open - 20 seconds Maximum time to spring Close 10 seconds
Standard(s)	EN 60730-1, EN 60730-2-8, BS EN 60730-1, BS EN 60730-2-8



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